

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of

Allocation of Spectrum Below
5 GHz Transferred from
Federal Government Use

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) ET Docket No. 94-32
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To: The Commission

COMMENTS

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Digital Ocean, Inc., a Kansas Corporation, respectfully submits the following comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM"), FCC 94-272, released November 8, 1994.

This NPRM proposes allocation of 50 MHz of spectrum that was identified by the Department of Commerce for transfer from Federal Government to private sector use. Digital Ocean, Inc. urges that one of the three segments comprising those 50 MHz remain available for unlicensed usage by Part 15 spread spectrum devices. Digital Ocean, Inc. has made substantial investments in the design and manufacturing of devices for operation in the 2,400-2,483.5 MHz band for computer communications. Those investments will be jeopardized, and possibly destroyed, if Part 15 devices are prohibited from using the best part of the 2,400-2,483.5 MHz band, or are required to operate with reduced capabilities in this band due to new, licensed users. In addition, Digital Ocean, Inc. has been marketing Part 15 spread spectrum devices for computer communication for almost 2 years, during which time we have encountered numerous users, with diverse applications, all of which are effectively addressed by this class of short-range, high-speed, unlicensed wireless communication equipment; whether they need the specific products sold by Digital Ocean, or those from other companies serving this market.

Digital Ocean, Inc. is actively participating in the technical work of IEEE P802.11, defining an interoperability standard for spread spectrum computer communication in the 2,400-2,483.5 MHz band. Reallocating the best 18% of this spectrum (effectively >20% because 2,400-2,401 MHz will be rendered almost useless for computer communication if the use of 2,402-2,417 MHz is restricted or prohibited) will reduce the market for, and usefulness of, our products operating according to the IEEE standard in the U.S. compared to abroad. Also, this reallocation will substantially reduce the usefulness of the emerging P802.11 standard, impairing development of a market for wireless computer networks and reducing users' access to interoperable products from a plurality of sources.

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Digital Ocean, Inc. was founded in 1992 specifically to develop, manufacture, and market computer communication devices operating in accordance with the rules of 47 CFR Section 15.247. To date, Digital Ocean's backers have invested over \$9 million in the development of these devices, which are the company's only products. Digital Ocean began deliveries to customers in early 1994. By late 1994, Digital Ocean's sales reached an annualized rate exceeding \$4 million per year. The backlog of orders for delivery in 1995 exceeds \$10 million. Digital Ocean, Inc. has already created 45 jobs, and employment will expand substantially in 1995 if sales of Part 15 spread spectrum computer communication devices in the U.S. is able to continue, and the emerging standards for interoperability of such devices are able to be completed under rules similar to those now in effect.

In § 16 the Commission invites comments on the use of the 2,390-2,400 MHz band. Digital Ocean, Inc. requests that this band be used for unlicensed data communication services.

In § 18 of the NPRM, the Commission requests comments on retaining the segment 2,402-2,417 MHz of the 50 MHz for use by Part 15 devices. Digital Ocean, Inc. strongly believes that such use should be allowed to continue. Prohibiting or significantly restricting the use of 2,402-2,417 MHz by Part 15 devices will limit the capacity of communication systems built according to the P802.11 standard for use in the United States, and will thereby place the U.S. users of the P802.11 standard in a worse position compared to similar users in other countries. If Digital Ocean, Inc. could only choose between the three options mentioned in § 18, we greatly prefer the option "Maintaining Part 15 use of the band while limiting licensed use of the band".

To protect the substantial investments of made by more than 50 companies involved in defining the IEEE P802.11 standard, as well as the investments by Digital Ocean, Inc. in the development of our products, we request the Commission to raise the status of Part 15 devices in the 2,400-2,483.5 MHz band to co-primary. By doing so, interference by Part 15 devices to the possible new, licensed services would not make our devices subject to demands for cessation of operation. Uncertainty regarding this aspect of future usability of this band by Part 15 devices is already inhibiting user acceptance of these products. If the Commission allows this uncertainty to continue, it will substantially reduce, if not stifle, development of the market for unlicensed wireless computer communication equipment.

In § 19 of the NPRM the Commission also requests comments on two types of use in the 2,402-2,417 band. One type is the use by licensed services subject to technical rules similar to the rules for unlicensed Part 15 devices and the other type is the use by Mobile Satellite Service (MSS). While Digital Ocean, Inc. cannot make detailed comments on the first such use, pending the availability of the relevant rules, we regard the concept as potentially appropriate. Coexistence studies performed by the proponents of MSS use are necessary before an informed recommendation can be made regarding use of the 2,402-2,417 band in this service.

Conclusion

Digital Ocean strongly believes that the usefulness of the entire 2,400-2,483.5 MHz band for spread spectrum Part 15 devices should not be impaired by decisions of the Commission. To protect the usefulness of Part 15 devices in the 2,400-2,483.5 MHz band, to remove the uncertainty about the future of such Part 15 devices, and to permit the continued existence of companies that supply Part 15 data communication equipment, the status of Part 15 devices in this band should be changed to co-primary. The band 2,390-2,400 MHz should be allocated to unlicensed data communication services.

Respectfully submitted,



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